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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,928	09/21/2000	Jay Kin Keung	10188	6748

7590 07/09/2002

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EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 07/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/666,928

Applicant(s)

KEUNG ET AL.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11 and 12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-8 have been cancelled in the amendment received on 5/10/02.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuhmann et al (US 5,326,625) in view of Keller et al (US 5,691,043), Falla et al (US 5,674,944), Crighton et al (US 6,235,143) and Shreck (US 5,681,208). Schuhmann discloses a sealable opaque multilayer polypropylene film having a five-layer construction meeting the claim limitations (abstract). Schuhmann discloses the film having a thickness of 40 microns and thickness of individual layer is as follows:

Core: 32.6 microns

Top Intermediate: 3.5 microns

Top skin layer: 0.2 micron

Top Intermediate: 3.5 microns

Bottom skin layer: 0.2 micron (example 1, and column 12, lines 14-19). However, thickness is a result-effective variable and would have been recognized by one skilled in the art to obtain a multilayer film that is distinguished by a high whiteness, an outstanding opacity, good gloss and excellent sealing properties. Thus, it would have been obvious to one having ordinary skill in the art at the

time the invention was made to employ the film of Schuhmann comprising the individual layers with the thickness instantly claimed since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involved only routine skill in the art. *In re Aller*, 105 USPQ 233.

Schuhmann discloses the top skin layer comprising polypropylene and SiO₂ (column 7, line 54 and column 9, line 25), the bottom skin layer comprising a terpolymer of ethylene-propylene-butylene (column 7, lines 49-50) and SiO₂ (column 9, line 25). Schuhmann discloses the top skin layer comprising 0.1 to 0.5% SiO₂ (column 10, lines 33-37), the intermediate layer comprising 3% TiO₂ (example 3).

Schuhmann is silent as to polybutylene terephthalate (PBT) of the core layer and silicone oil and crosslinked silicone of the bottom top layer. Keller teaches the core layer comprising PBT as the cavitating agent (column 7, lines 15-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated PBT into the core layer motivated by the desire to form microvoids resulting in a white opaque film. Keller discloses a skin layer comprising silicone oil and crosslinked silicone (column 8, lines 40-64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the crosslinked silicone and silicone oil into the bottom top layer motivated by the desire to reduce the coefficient of friction properties of the film.

The combination of Schuhmann and Keller teach every element in the claims except a phosphite and fluoropolymer as the additives in the core layer. Falla supplies the missing features. Falla discloses the additives including phosphite antioxidant, and fluoropolymer as a processing aid (column 6, lines 28 and 34). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated phosphite and fluoropolymer into the core layer motivated by the desire to obtain an ease of handling and stabilize the product processing.

The combination of Schuhmann, Keller and Falla teaches every element of the claims except the methyl acrylate antiblock agent, concentrations of methyl acrylate, phosphite and fluoropolymer. Crighton discloses a heat sealed polymeric film comprising a polymethacrylate antiblock agent in the skin layer of the film (column 2, lines 32-34). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated a polymethacrylate antiblock agent into the top skin layer motivated by the desire to obtain a film having good sealing with high slip on the heat seal jaws.

The combination of Schuhmann, Keller, Falla and Crighton teaches every element of the claims except the coated silica incorporated into the bottom skin layer. Shreck discloses a polymeric film comprising a coated silica in the skin layer of the film (comparative example 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have

incorporated a coated silica into the bottom skin layer motivated by the desire to obtain a film having high gloss and low coefficient of friction.

Since the concentration of the additives is a result-effective variable and would have been recognized by one skilled in the art to obtain a multilayer film that is distinguished by a high whiteness, an outstanding opacity, good gloss and excellent sealing properties. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the film of Schuhmann as modified by Keller/Falla/Crighton/Schreck comprising additives that have the concentration instantly claimed since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involved only routine skill in the art. *In re Aller*, 105 USPQ 233.

The combination of all the cited reference meets all the limitations of structure and chemistry of the claims and thus the resulting film would inherently show an improved tear performance in a hot tack test.

Response to Arguments

4. Applicant's arguments with respect to claims 11 and 12 have been considered but are moot in view of the new ground(s) of rejection.
5. The argument that it is impermissible to select the components from Keller, Falla and Crighton to modify the compositions of the film of Schulmann to reconstruct the compositions of the claimed film is not persuasive. The examiner believes the

combination of all the cited references is proper and motivation for rejection combination is sufficient.


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Monday to Friday, 8:30 to 5:00 (EAST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV
July 3, 2002


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700